



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,856	02/11/2004	Nagaraj Jayanth	0315-510/COD	3884
27572 7590 08/19/2008 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER JIANG, CHEN WEN	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 08/19/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/776,856	<b>Applicant(s)</b> JAYANTH ET AL.	
	<b>Examiner</b> Chen-Wen Jiang	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080304, 20080708</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. In view of the Appeal Brief filed on 7/27/2006 and BPAI decision (Examiner Reversed) issued on 3/31/2008, PROSECUTION IS HEREBY REOPENED. New grounds of rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Director has approved of reopening prosecution by signing below:

/KAREN M. YOUNG/

Karen M. Young

Director, Technology Center 3700

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6,9-12,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoth et al. (U.S. Patent Number 5,710,723) in view of Farag et al. (U.S. Patent Number 5,629,870).

In regard to claims 1,2,5,10 and 14, Hoth et al. disclose a method and apparatus to monitor and protect operating equipment or machine driven apparatus, such as pump, motor, fan or compressor (see col. 4, lines 18-19). Referring to Fig.1, the diagnostic testing 6 is performed by a demand on line 5 and the results are fed back on line 6' to the central station 2 to identify the failure. Referring to Fig.2, the central work station 22 supports the monitoring unit 18 to periodically gather data, and then the monitoring unit 18 processes the periodic data reading (function of time) and provides an appraisal of the equipment status, that is, normal or not normal. Hoth et al. disclose the invention substantially as claimed with the application to pump,

Art Unit: 3744

motor, fan or compressor. However, Hoth et al. do not disclose the motor can be used to drive a compressor. Farag et al. disclose motor protector (see abstract) for a motor to drive compressor, pump, blower and machine tools in the same field of endeavor for the purpose of have the application to motor driven apparatus. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the apparatus of Hoth et al. with a motor driven compressor in view of Farag et al. so as it is well known the motor can be used to driving compressor, pump, blower or machine.

In regard to claims 3 and 11, Hoth et al. disclose the operating parameters of the operating equipment 12-1 are sensed by a number of sensors 14-1 which may include a vibration sensor, a sensor for determining the machine load, a sensor for sensing the machine temperature, a sensor for sensing the electrical current being drawn by the operating equipment, and a sensor for sensing the ambient temperature.

In regard to claim 4, reference voltage is supplied to the monitor (col.5, lines 11-31).

In regard to claims 6, 9, 12 and 15, Fig.11 presents the status report by comparing the data with desired range for particular sensor data and overall system status.

4. Claims 7, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoth/Farag as applied to claims 1-3, 6 and 10 above, and further in view of Day,III et al. (U.S. Patent Number 4,387,368).

In regard to claim 7, Hoth/Farag do not disclose light indicators, Day teaches the use of a plurality of lights in order to indicate the presence or absence of a fault condition (see 50 for Figures 1 and 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Hoth/Farag such that it included the use of a

Art Unit: 3744

plurality of lights in order to indicate the presence or absence of a fault condition in view of the teachings of Day.

In regard to claims 8 and 13, Day, III teach that the use of a coded sequence of electrical pulses to provide output signals in an indication system is old in the art (see col. 3, lines 42-50). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Hoth/Farag such that it included the use of same in view of the teachings of Day.

5. Claims 1, 9, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canada et al. (U.S. Patent Number 5,726,911) in view of Farag et al. (U.S. Patent Number 5,629,870).

Canada et al. disclose an electronic motor monitor for machinery. The monitor 100 senses various parameters of the motor 102 during operation, such as temperature, magnetic flux and vibration. Sensor outputs are processed and analyzed by monitor electronics to determine various life history parameters (function of time). Canada et al. disclose the invention substantially as claimed without disclosing the type of machinery used for the motor. Farag et al. disclose motor protector for a motor to drive compressor, pump, blower and machine tools in the same field of endeavor for the purpose of have the application to motor driven apparatus. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the apparatus of Canada et al. to a motor driven compressor in view of Farag et al. so as to monitor the motor/compressor assembly.

Art Unit: 3744

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809.

The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chen-Wen Jiang/  
Primary Examiner, Art Unit 3744